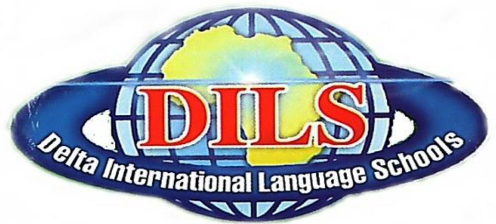
# Math Department






# Grade 4

## First term
## 2017-2018

**Name: ……………………………………………….**

**Class: 4/………**




# Unit one

## Large numbers and operations on them




# Large numbers "Hundred thousands , Millions and Milliards"

## 1) Write the following numbers in words:

a) 638 194 : ……………………………………………………………………………………………..
b) 1 200 300 : ……………………………………………………………………………………………
c) 25 000 456 : …………………………………………………………………………………………
d) 1 450 234 000 : ……………………………………………………………………………………
……………………………………………………………………………………………………………

## 2) Write the following numbers in digits:

a) Nine hundred sixty four thousand, five hundred and ninety-three
: ………………………….
b) Seven hundred twenty thousand, and eight: …………………….……
c) Thirty million, nine hundred fifty one thousand: …………………..……
d) Five milliard , sixteen million, four hundred and eighty-three
: …………………………..

## 3) Complete:

a) …….. Million+ ……… Thousand + ……..  = 70 947 013
b) Twenty four million, thirty one thousand and five   = …………………….
c) The greatest number formed from 9 , 7 , 1 , 0 , 6 , 8 and 5 is ………………..
d) The place value of 7 in 357 040 210 is ……………………
e) Seven hundred thousand and four is written as …..............................
f) 100 000 is just after………………
g) 800 600 400 <   ………………   <  800 700  300
h) 170 000,  180 000 , 190 000 , ……………….. , ……………… , …………………
i) One milliard = ............ millions  = ............... thousands
j) 500 000 + 200 + 3 = ......................
k) …………………… = 50 million + 72 thousand + 278




l) $\frac{1}{2}$ million = ..........................

m) $\frac{1}{4}$ million = ..........................

n) $\frac{3}{4}$ million = ..........................

o) $\frac{1}{4}$ milliard = ..........................

p) $\frac{1}{2}$ milliard = ..........................

q) $\frac{3}{4}$ milliard = ..........................

r) $3\frac{1}{4}$ milliard = ..........................

## 4) Put the suitable sign ( >, < or = ):

a) 37 hundred million ☐ three milliard

b) The smallest 8-digit number ☐ The greatest 7-digit number

c) 450 thousand, and 20 ☐ 450 200

d) The value of 6 in 624 245 ☐ 600 × 1000

## 5) Arrange the following numbers in order:

a) 252 379, 262 379, 225 379 and 225 397

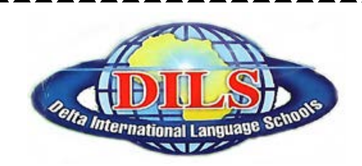
The ascending order: .................. , .................. , .................. , ..................

b) 3 300 333 , 33 330 300 , 333 300 , 3 300 300

The descending order: .................. , .................. , .................. , ..................

## 6) Write suitable numbers in the rectangles according to their Places on the numbers line:

100 000 ☐ ☐ ☐ 180 000 200 000




# Operations on Large numbers

## "Adding and subtracting large numbers"

**1) <u>Find:</u>**

a) 354 624
+ 68 259
……………….

b) 5 870 361
− 4 965 689
……………………

c) 3 246 239 + three hundred thousand = ……………….

d) 7 279 324 – 5 millions =……………………

e) ……………. + 7 618 149 = 10 869 183

f) 3 108 721 − ……………….= 2 857 101

**2) <u>Story problems:</u>**

a) The ministry of health vaccinated 987 6543 children last year and 845 6783 children this year. Calculate the total number of the vaccinated children.

……………………………………………………………………………………………………

b) A factory produced 2987543 toys in one-year .The next year the factory produced 3267594 toys. Find the difference between the products in the two years.

……………………………………………………………………………………………

# "Multiplying a whole number by another"

## 1) Find: (with steps)

a)
```
   5 342
×      3
--------
………………
```

c)
```
   8 305
×      2
--------
………………
```

b)
```
   6 805
×     46
--------
………………
………………
--------
………………
```

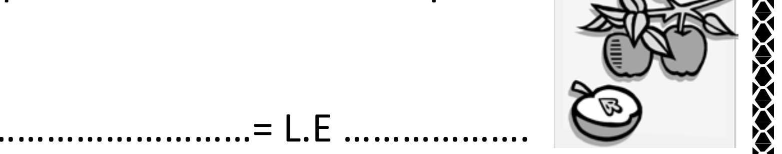
c)
```
   7 265
×     83
--------
………………
………………
--------
………………
```

d) 508 × 85 = ……..

e) 9375 × 7 = ………

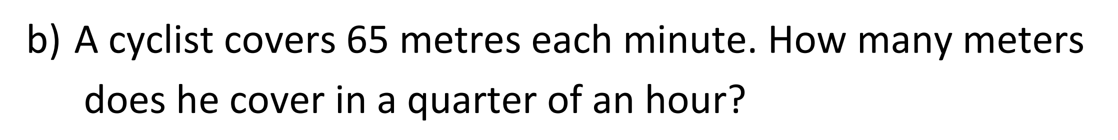
## 2) Story problems:

a) The price of one kilogram of apples is P.T. 850. Find the price of 7 kilograms.



The price of 7 kilograms = ……………………………….= L.E ………………

b) A cyclist covers 65 metres each minute. How many meters does he cover in a quarter of an hour?





He covers = ………………………………………………… = ………………………




# "Dividing a whole number by a 1-digit number"

| | |
|---|---|
| | **Quotient** |
| **Divisor** | **Dividend** |

**Dividend ÷ Divisor = Quotient , Remainder**

**Dividend = (Divisor × Quotient) + Remainder**

## 1) <u>Find: (with steps)</u>

a) 6 534 ÷ 2 = ………..……

b) 9 365 ÷ 5 = ………..……

c) 6 444 ÷ 9 = ………………

d)

2 | 5 342

f)

5 | 46 805

g)

3 | 30 249

## 2) <u>Story problems:</u>

a) Shahd saved L.E. 9 225 in 5 months ,Calculate how much did she save in one month?



She saved = ……………………………………………………… = …………………

b) 328 tourists want to visit the pyramids by buses. If they are divided

Into 8 buses. Find how many tourists can each bus hold?



The bus holds = ……………………………………………………… = …………………






## "Dividing a whole number by a 2-digit number"

## 1) Find: (with steps)

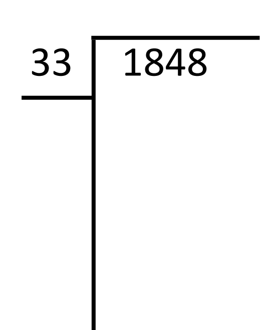
a) 36 | 180

b) 37 | 333

c) 29 | 232

d) 25 | 1550

e) 33 | 1848



f) 83 | 2656

## 3) Story problems:

a) A man bought 52 boxes of mango for L.E. 3 640. Find the price of each box.?

..........................................................................................................

b) Ayaat bought a TV set for L.E. 1 660 , she paid L.E. 340 and the rest was divided on 24 equal installments. Find the value of each installment?



..........................................................................................................

..........................................................................................................




# Unit test

## 1) Complete:

a) 9 451 024 300 is read as ……………………………………………………………
……………………………………………………………………………………………..…….

b) The smallest different 7-digit number is ………..

c) The million is the smallest number formed from ……….. digits

d) Ten million is the smallest number formed from ……….. digits

e) The place value of the digit 8 in 8 394 565 is ……….. and its value is ……………………..

f) 32 million , 10 thousand , 12 in digits is …………….

g) 350 tens = …………… hundreds

h) 3092000 = ……………. millions , ……….. thousand

i) $50 \times 40 =$………… Hundreds

j) $805 \times 100 =$………$\times 10$

k) Three millions , three thousands and three in digits is ………………..

l) $\frac{1}{2}$ million = ………….

m) $\frac{1}{4}$ milliard = ……………. thousands

n) Dividend = ( divisor × ……………) + ………….

## 2) Find the result of each of the following ( with steps )

a) $4803 \times 67 =$………

b) $4503 \times 59 =$………

c) $2525 \div 25 =$………

d) $1508 \div 36 =$………




## 3) Story problems

a) A number, if it is divided by 11 the quotient is 488 and the remainder is 4 . What is this number?

........................................................................................

b) Eman bought 24 meters of cloth for L.E. 648 .Find the price of one meter.

........................................................................................

c) In a school, if 756 pupils are distributed equally on 18 classes . Find the number of pupils in each class.

........................................................................................

d) Hazem bought 26 books from the book fair on series of animal world . If the price of one book is P.T 725 . Find the money that Hazem paid.

........................................................................................

e) Reda bought a TV set for L.E 4420 . He paid L.E 500 in cash , then he paid the rest in 28 equal installments . Find the value of each installment.

........................................................................................

........................................................................................

f) Sally bought 26 meters of cloth for L.E 286. Find the price of 8 meters of the same kind?

........................................................................................




# Unit two

## Geometry




# "Relation between two straight lines"

## 1) Write the relation between each two straight lines :-

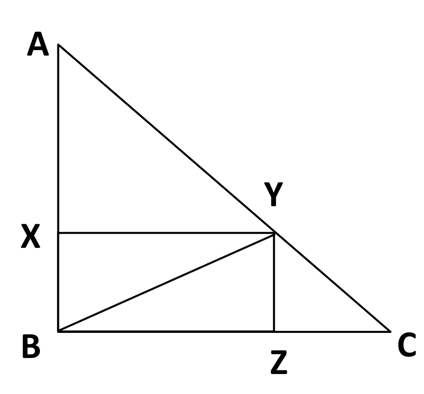
……………………. ……………………….. ……………………… ………………………

## 2) Look at the figure opposite , then complete :-

a) $\overleftrightarrow{AB}$ ….. $\overleftrightarrow{BC}$ ( ⊥ , // )

b) $\overleftrightarrow{AB}$ …... $\overleftrightarrow{YZ}$ ( ⊥ , // )

c) $\overleftrightarrow{AY}$ intersects with $\overleftrightarrow{BZ}$ at the point …….




## 3) Complete :-

a) The two perpendicular straight lines make angle with measure ………°

b) The two lines which are never intersect are called …………………… lines

c) The two intersecting straight lines may be ……………………. or ……………………………….






# "Polygons"

## 1) Write the name of each figure :-

………………… ……………. …………….. …………… …………………

## 2) Complete :-

a) The polygon ⬡ is called ………….

b) The four sides are equal in length in ……………… and …………….

c) The two diagonals are equal in length in ……………… and ………………

d) The two opposite sides are parallel in ……………………. , ……………………. ,

……………………. and …………………….

e) The quadrilateral which has only two parallel sides is ……………

f) The two diagonals are perpendicular in ……………… and ………………

g) The polygon which has five sides is called …………………and the polygon with ……… sides is called heptagon

h) The four angles are right in ………………….. , ………………..




**3) Draw** the rectangle XYZL in which its two dimensions are 5 cm and 3 cm ,then complete:-

a) XY = …….. = ……… cm and YZ = …….. = ……….= ……….cm

b) $\overline{XY}$ // …… and $\overline{XY}$ ⊥ ……

c) $\overline{YZ}$ // …… and $\overline{YZ}$ ⊥ ……




# " The Triangle "

## 1) Complete :-

a) The Triangle is a polygon with ……… sides , ……… angles and …….. vertices

b) The sum of the interior angles of any triangle = …….°

c) The types of the triangle according to its side lengths are ……………….. , ……………….. and ……………………

d) The types of the triangle according to its measures of angles are ……………….. , ……………….. and ……………………

e) Any triangle has at least ……… acute angles

f) The type of The Triangle with sides lengths 7 cm , 7 cm and 6 cm is …………………triangle

g) The type of The Triangle with measures angles 75°, 30° and 75° is ………..angled triangle.

h) In The Triangle ABC , m(∠A )= 80 ° , m(∠ B) = 50° Then m(∠C) = ………..°

i) In The Triangle XYZ ,m(∠ X ) = m(∠ Y) = 45° Then This triangle is ………..angled triangle.

**2) Draw** Δ ABC in which AB = 5 cm , m(∠ A) = 50° and m(∠ B) = 60° , then answer the following :-

a) Find m(∠ C) without using protractor

b) Determine the type of the triangle according the length of its sides and according to

the measure of its angles




3) **Draw** Δ XYZ in which DE = 8 cm , EF=6 cm and m(∠E ) = 65 ° , Then state the type of this triangle according to its sides length.




# Unit test

## 1) Complete:

a) The polygon which has four sides is called a ………………………….

b) The polygon with six sides is called …………….

c) The pentagon is the polygon with ………. sides

d) The two diagonals of the parallelogram ……………….

e) The two diagonals of the rectangle ………………..and ……………….

f) The two diagonals of the rhombus ………………..and ………………

g) The two diagonals of the square ……………….. , ……………… and …………….

h) The four sides are equal in length in ………… and …………..

i) The measure of each angle in the rectangle = ……… °

j) The quadrilateral that has exactly one pair of parallel sides is called ………………

k) The two perpendicular straight lines make ………….. right angles

l) The measure of each angle in an equilateral triangle ………..°

m) $30^{\circ}$ , $60^{\circ}$ , $90^{\circ}$ are the measure of angles of ………………… triangle.

n) If the side lengths of a triangle are different, then the triangle is called …………..

o) If the two side lengths of a triangle are equal , then the triangle is called ………….

p) If the three side lengths of a triangle are equal , then the triangle is called ………….

q) If the triangle of sides 7 cm , 5 cm and 7 cm , its called …………………

r) The sum of the measure of the interior angles of any triangle = ………. °

s) In triangle ABC, m (∠A) + m (∠B) + m (∠C ) = ………………

t) The quadrilateral has ………… diagonals

u) The polygon which has no diagonals is ………………

v) The sum of the interior angls of the square (rectangle) is ………….. °



## 2) Draw

**a)** Draw the triangle ABC in which AB = BC = 6 cm , m ( ∠ABC ) = $70^0$ . then state the type of the triangle according to its angles and its sides .

**b)** Draw the triangle XYZ which XY = 5 cm , and m ( ∠X)= 75° , m ( ∠Z) = 60° , then find:

(1) The type of the triangle according to its side lengths.

(2) The type of the triangle according to its measures of angles.




# Unit three

## Multiples, Factors and Divisibility




# " Multiples "

If a number is multiplied by 2, then the product is a **multiple** of 2

Since 2 × 3 = 6 then 6 is a **multiple** of 2

The products 0 , 2 , 4 , 6 , 8 , 10 , ......... are called multiples of 2

- The multiples of 2 are called **even** numbers
- Zero is a multiple of any number
- Any number is a multiple of itself
- 2 × 7= 14 hence 14 is multiple of 2 and is also a multiple of 7

**1) <u>Complete:</u>**

a) The multiples of 3 are :.......,.......,........,........,.......

b) The multiples of 5 are:......,......,.......,.........,.........

c) The multiples of 12 are :.........,.........,.......,........,.........

**2) <u>Choose the correct answer:</u>**

a) The multiple of all numbers is ( 0 , 1 , 10 , 11 )

b) The multiple of 4 is ( 9 , 16 , 26 , 33 )

c) 10 is the multiple of 2 and also multiple of ( 3 , 4 , 5 , 8 )

d) Any even number is the multiple of ( 7 , 2 , 9 , 5 )

**3) <u>Write :</u>**

a) All the multiples of 2 that are less than 15

.........................................................................

b) All the multiples of 5 between 4 and 44

.........................................................................




**4) Complete with multiples of 10:**

a) ..........< 38 < ............

b) ......... < 79 < ...........

c) .......... < 111 < ...........

# " Divisibility "

**Any number is divisible by another if the remainder of the division is zero.**

A whole number is **divisible by 2** if the whole number is **even**

A whole number is **divisible by 3** if **the sum of its digits is divisible by 3**

A whole number is **divisible by 5** if its **units is 0 or 5**

A whole number is **divisible by 10** if its **units is 0**

**1) Complete:**

a) 12 is divisible by 3 because 12 ÷ 3 =......... and the remainder =..........

b) 36 is not divisible by 5 because ....... ÷ 5 = ....... and the remainder =.......

c) 132 is .................... by 10 because ..........................................................

**2) Complete with divisible or not divisible:**

a) 13 is .......................... by 2

b) 42 is ...........................by 7

c) 120 is..........................by 5

d) 325 is..........................by 3




### 3) Choose the correct answer:

a) 74 is divisible by........... ( 2 , 3 , 4 , 5 )

b) 24 is not divisible by .......... ( 8 , 2 , 5 , 3 )

c)250 is not divisible by.......... ( 5 , 3 , 2 , 10)

d)321 + ..... is divisible by2 ( 0 , 2 , 4 , 3 )

### 4) Complete:

a) The number is divisible by 10 if its units are..........

b) The two numbers 12 and 21 are divisible by ........

c) All even numbers are divisible by..........

### 5) Write:

The smallest and the greatest 3-digit numbers which are divisible by 5 are .................. , ...................

## " Factors "

**If you know that:** $6 = 1 \times 6$ and $6 = 2 \times 3$

The numbers 1 , 6 , 2 , 3 are called **factors** of the number 6

1 is a **factor** of all numbers

2 is a **factor** of all even numbers




1) **Complete:**

a) The factors of 18 are :.................................

b) The factors of 24 are:.................................

c) The factors of 56 are:.................................

2) **Choose the correct answer:**

a) 2 is a factor of ............ ( 41 , 303 , 330 )

b) The factor of all numbers is ....... ( 0 , 1 , 2 )

c) The number 7 has .........factors ( 2 , 3 , 4 )

## " Prime numbers "

The prime number is a whole number that has only 2 different factors . which are 1 and the number itself.

Like : 2 , 3 , 5 , 7 , 11 , 13 , 17 , 19 , 23 , 29 , 31 , 37 , 41 , 43 , 47 , …

2 is the smallest prime number.

2 is the only even prime number.

3) **Complete with " prime number" or " non prime number" :**

a) 5 is ......................

b) 13 is....................

c) 25 is...................

d) 99 is ...................




## 4) Complete:

a) The smallest odd prime number is................

b) The prime number has two factors ............ and............

c) 1 is not a prime number because...............................

## 5) Choose the correct answer:

a) All prime numbers are odd except ........ ( 2 , 3 , 4 )

b) The numbers 1 , 3 , 5 and 11 are all.............. ( prime , odd , even )

c) 2 , 3 and 5 are prime factors of ............ ( 10 , 32 , 30 )

## 6) Factorize:

a) 16

b) 20

c) 86

16 |

20 |

86 |

d) The prime factors of 24 are ............ , ............. , ............ and .............

24 |

e) Write all prime numbers less than 35

..............................................................................................




# " Highest common factor (H.C.F) "

a) To find the H.C.F of 18 and 24:

The factors of 18 are ………………………………

The factors of 24 are……………………………….

The common factors of 18 and 24 are………………………….

The H.C.F of 18 and 24 is……………..

b) Find the common factors of 8 and 16

c) Find the H.C.F of 12 and 28

d) Find the H.C.F of 10 , 15 , 35




# " Lowest common multiple (L.C.M) "

a) To find the L.C.M of 3 and 6:

The multiples of 3 are ……………………………………..

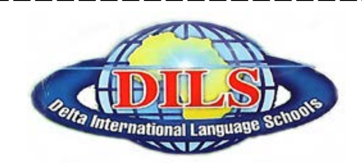
The multiples of 6 are……………………………………….

The common multiples of 3 and 6 are ………………………

The L.C.M of 3 and 6 is ……………………………….

b) Find the L.C.M for the numbers 8 and 18

c) Find L.C.M of numbers 12 , 24 and 36




# Unit test

## 1) Complete:

a) ………. is the common multiple of all numbers

b) ………. is the common factor of all numbers

c) The prime number has only ……….. factors

d) The number of factors of the prime number is …………………..

e) All prime numbers are odd except ………….

f) The smallest prime number is ……………………

g) The only even prim number is ………………

h) The smallest odd prim number is …………..

i) Any even number is divisible by ……………

j) The number is divisible by 5 if its units digit is …………….

k) The number 351 is divisible by …………..

l) Factors of 15 are …… , ……. , ……. , ……..

m) Prime factors of 45 are …… , ……… and …….

n) The number of prime factors of 12 is ………..

o) The smallest number divisible be 2 , 3 , 5 is ……………………

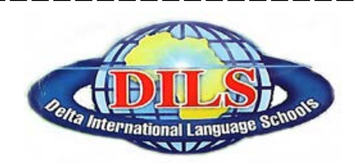
p) The side length of a square = perimeter ÷ ………..

q) The multiples of 6 is ………………………………..

r) ( 0 , 5 , 10 , 15 , 25 ) are multiples of ……………

s) All the multiples of a number are divisible by ………………

**2)** Find the H.C.F and L.C .M of each of 8 , 12 and 16




# Unit four

## Measurement




# " The Length "

**Remember:**

1 km = 1000 m 1 cm = 10 mm

1 dm = 10 cm 1 m = 100 cm

* **To convert from a larger unit of length to a smaller unit** of length we **multiply.** ex*:* 1 km × 1000 = 1000 m

* **To convert from a smaller unit of length to a larger unit** of length we **divide**. *ex:* 10 mm ÷ 10 = 1 cm

**1) Complete the following:**

a) 7 cm = …………….mm.

b) 4 cm =………….mm.

c) $6\frac{1}{2}$ cm = ………..mm.

d) 150 mm=……….cm.

e) 100 mm =………. cm.

f) 2.5 m =…………cm.

g) 50 mm =……….. cm.

h) 700 mm=………..cm.

i) 1 m=…………….cm=……………..mm.

j) 7005 mm=……………cm=……………m.



**Remember**: To compare any measures they should all be with the same unit of length




## 2) Arrange the following in ascending order:

a) 65cm , 70mm , 2m.

..........................................................................................

b) 5dm , 35cm , 1m , 140mm.

..........................................................................................

c) 3km , 2750m , 8000cm.

..........................................................................................

## 3) Arrange the following in descending order:

a) millimeter , decimeter , meter , centimeter

..........................................................................................

b) 50m , 1500mm , 701cm

..........................................................................................

c) 57dm , 13m , 1113mm , 704cm

..........................................................................................

---

# " Perimeter "

**Remember that:**

* The **perimeter** of any polygon is equal to the **sum** of its side lengths.

* **Perimeter of a square** = side length × 4

* **Perimeter of a rectangle** = (length + width) × 2

* **Perimeter of a triangle** = sum of all side lengths.




**1) Calculate the following:**

a) Perimeter of a square of side length 4 cm.

……………………………………………………………………………………………

b) Perimeter of a rectangle of dimension 40 cm, 30 cm.

……………………………………………………………………………………………

c) The side length of a square whose perimeter is 28 dm.

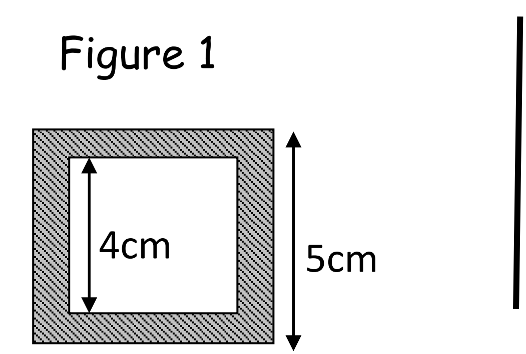
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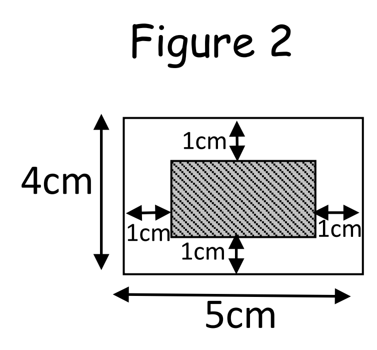
**2)** If the perimeter of a rectangle is 30 cm and its width is half its length. Find the length and the width of the rectangle.

……………………………………………………………………………………………………

……………………………………………………………………………………………….

**3)** Look at each of the following shapes, and then calculate the perimeter of shaded part in each of them:




Perimeter of shaded part in figure 1= …………………………………………….

……………………………………………………………………………………………

perimeter of shaded part in figure 2= …………………………………………….

……………………………………………………………………………………………



# " The Area "

**Remember:**

* The **Area** is the inside space of a shape.

* **Area of a square** = side length × side length

* **Area of rectangle** = length × width

Therefore: **Length of rectangle** = Area ÷ Width

**Width of rectangle** = Area ÷ Length

* The units of Area:

$1\ \text{Km}^2$ = 1000 m × 1000 m = $1000\ 000\ \text{m}^2$

$1\ \text{m}^2$ = 10 dm × 10 dm = $100\ \text{dm}^2$

$1\ \text{m}^2$ = 100 cm × 100 cm = $10\ 000\ \text{cm}^2$

$1\ \text{dm}^2$ = 10 cm × 10 cm = $100\ \text{cm}^2$

## 1) Complete:

a) The area of a square whose side length is 8 cm

A =…………… ×……………=……….. $\text{cm}^2$

b) The area of a square whose side length is 3 dm

A = ………… ×………… = ……… $\text{dm}^2$ = ……… $\text{cm}^2$

c) A square of perimeter 40 cm.

Then the side length =………………÷ 4 = ……… cm.

And the area of this square =…………× ……… = ……….. $\text{cm}^2$




**2)** Find the area of a rectangle whose length is 70 cm and width is 50 cm in square decimeter.

…………………………………………………………………………………………

………………………………………………………………………………………

**3) Arrange the following units of area descendingly:**

$cm^2$, $dm^2$, $km^2$, $m^2$, $mm^2$

…………………………………………………………………………………………

**4) Complete:**

a) $3km^2$=…………………… $m^2$.

b) $7000000m^2$ = ………………………$km^2$.

c) $75m^2$ = ………………………..$dm^2$.

d) $4500dm^2$ = ……………………….$cm^2$.

e) $850000cm^2$=……………………..$dm^2$=………………………$m^2$.




**5)** The opposite figure represents a rectangle of dimensions 9 cm and 7 cm. Inside it there is a square of side length 6cm .

7 cm
6 cm
9 cm

***Calculate***:

1) The area of the shaded part.

2) The perimeter of the inner and outer boundary of the shape

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

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## ** With our best wishes **

## Math Staff

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# Unit test

## 1) Complete:

a) The perimeter of the square = ……….× ………

b) The perimeter of the rectangle = ( …… + …… ) ×……..

c) The half perimeter of rectangle = ……. + ……….

d) The perimeter of the square of side length 5 cm = ……….. cm

e) The perimeter of the rectangle with dimensions 6 cm and 4 cm = ……….. dm

f) The side length of a square whose perimeter is 28 cm is ……… cm

g) The area of square = …………….. × ………………

h) The area of rectangle = …………….. × ………………

i) 2 dm = …… cm , 50 cm = …… dm , 8 km = …….. m , 90 m = ……… dm

j) 260 cm = ………. m , ……….cm

k) 3 570 m = ………. km , ………m

**2)** A square its perimeter is 32 cm. Find its area.

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**3)** Find the perimeter and the area of the rectangle whose length is 5 cm and its width is 2 cm.

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